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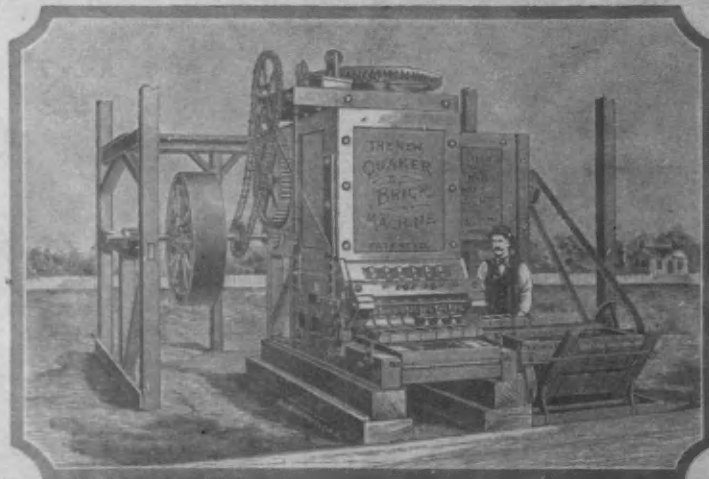


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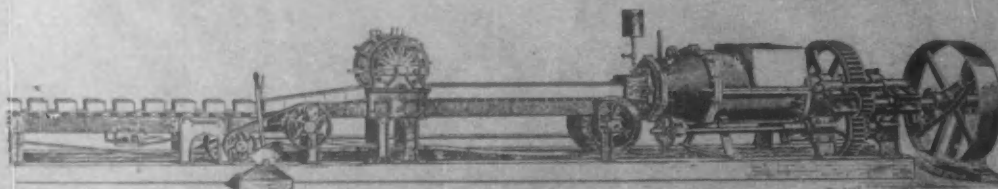
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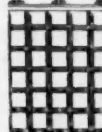
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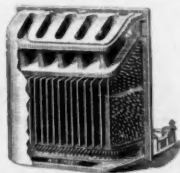
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# THE BRICKBUILDER

VOL. II.

BOSTON, JUNE, 1893.

No. 6.

## THE ORNAMENTAL TREATMENT OF BRICKS AND IRON.

BRICK, unlike iron, is an old building material, evidence existing that it was used in the time of the Egyptians, though at present little other than traces of Roman work exist. The early Egyptians and Greeks used stone in all works of a prominent nature where permanence and durability were aimed at, and the bricks by them were used more generally for smaller works. The brick of today has, however, changed very much, both in the method of production and especially in quality; and again, we moderns find it so well suited to grapple with considerations in construction which were never thought of by the ancients; hence we may fairly consider it a modern article, if not in itself at least in the manner in which it is constructively treated. The Romans used the brick to form a body to their walls and then covered the surface with marble or other stone slabs or tiles; and here began the system which is carried to such extremes at present. Brickwork reached a very satisfactory condition in the Middle Ages, and some of the works of that period show that careful consideration was paid to the preparation of suitable designs; however, neither the treatment adopted by the Egyptians, Romans, nor any of the mediæval work is safe to imitate at the present, because, naturally, as time goes on, convenience and different requirements in setting out the buildings vary so much.

The abominable practice of covering the edge faces of the brickwork with a rendering of cement stucco has obtained a great hold, and too much cannot be said in severe condemnation of the practice; and it is by the aid of this habit that result the cases of wretched deception before referred to. In many buildings it is a common method to cover a really good and thorough brickwork execution with this cement jacket, and mark out with all the joints and other attendant features of solid stone, and plant on everywhere possible overdone cast cement ornament, and in some cases the deception is enhanced tenfold by painting and sanding in direct imitation of stone. All this, then, tends to debase brickwork, for when the knowledge exists that the outside is to be covered and hidden but little attention is given to the facial appearance of the bricks and

the method of laying them. When the general advantages of exposed brick surfaces are considered it is surprising that more attention is not given to their adoption. The impervious and vitriolized surface of a hard, well-burnt brick is very little affected by the acidulating action of smoke and other fumes peculiar to cities and by the wearing effects of the weather, against all of which both ordinary stone and stucco are weak as a defence. And again, the brick is a material that is eminently suited for construction on account of the facility with which it lends itself to the awkward complications and broken-up nature of our modern buildings; nor can it be doubted that brick in conjunction with terra-cotta will be a large factor in the buildings of the future. As far as expense is concerned, bricks exposed are much less than stone and very little more than stucco. It should therefore be the duty of the designer to make the external appearance and the surface suitable to and in harmony with such construction. Boldness of form in which the brick is collectively considered should be relied upon rather than a frivolous ornamentation in which the brick is more individually apparent. The builder has at his command such improved methods of economically operating in late years, and as there is every chance of its improvement, it would seem that there is nothing to deter the designer from exercising more courage in setting out bold features, the economical execution of which in olden times would have been a deterrent consideration. The Romanesque would seem to be a good model on which to found a design embracing a more characteristic use of the brick. There is in this style something which is strikingly bold, and by making the arch features more apparent, piers rather than columns, together with rejection of the smaller detail ornament, which crept into the late examples, and by a judicious unity in execution, at the same time making all materials — as, for instance, iron — fulfil their part in a harmonious manner, something more simple and more just to ourselves might be produced.

There have been erected recently in Sydney two notable examples of exposed brick surfaces, and one in

particular has a most disappointing appearance; the whole effect is oppressively flat and monotonous, brought about by the entire absence of any boldness of proportion, especially the mouldings of the strings and cornices, which are so ill-proportioned as to be hardly perceptible on the opposite side of the street. There can be no doubt that failures such as these have a very bad influence on the progress of the use of bricks. The work throughout was all that could be desired, as will be understood when it is stated that the facing joints did not exceed a quarter of an inch, and the bricks were not gauged or rubbed, but hard, double-pressed, as they had left the kiln. To an observer interested the lesson given by this example points out that if an effective result is desired it is most necessary that the design shall not rely upon small and insignificant moulds (good work notwithstanding), but rather upon the shaping of parts of the actual building into such forms as will insure effect in proportion, as will be seen in the case of the other of the buildings referred to, which has been treated in a bold manner by an execution in Romanesque. The piers and the fine arches, together with striking breaks and formations in the wall surfaces, and the attention given to color harmony, cause one when looking at it to forget the brick as an atom and think only of the magnificent whole formed by its use. The knowledge is present to the most simple that it is brick, but there is, co-existent, the impression that the effect is excellent. In this case the architect has given some considerable attention to detail, of course rendered necessary by following closely the style; but it is not too much to say that had most of the detail been omitted the design would not have suffered.

The nature of the modern brick, on account of its hard and finished surface, renders it necessary to impress the mould before being burnt; and so far so good, for it is most desirable that the whole surface, plain and otherwise, of the buildings should be uniform, which would be a matter of impossibility were the attempt made to carve, cut, or rub any particular portion, for which bricks less hard would have to be provided. But in this method of previous impression, advantage is taken of the easy method of production to indulge in excess, and the abomination of small and insignificant mouldings is the result. Mouldings which cannot be seen are abortive and useless in any material, and in this case what can be got in the brick itself cannot be carried out when laying it, and nothing looks worse than lines of moulding not perfectly straight and horizontal. The only remedy that remains when such occurs is to straighten up as much as possible by the aid of tuck-pointing. The only logical method of using bricks for mouldings is to treat them as part of or one member of the mould, than to endeavor to get two or three members in each course of bricks. All attempts at the execution in brickwork of the classic orders with columns and entablature should be avoided, and the massive detail rendered necessary by the adoption of the Renaissance renders failure certain unless a plentiful mixture of stone is used, which is not always possible.

Color is a question that requires a great amount of attention when designing, and some of the huge mistakes which almost every city can complain of in the way of glaring examples of red walls lavishly interspersed with bands and all kinds of geometrical patterns in white brick should certainly be things of the past. There can be no doubt that in this particular some advance will have to be made in a general manner by the manufacturers, but it is very certain that none will take place till a firm demand is made by the designer; in fact, none can be expected if the user is content to manage with the result of a loose system, which, as far as color is concerned, depends merely on what the clay likes to give. It must be confessed that the advance made in controlling the color return has been nothing compared with what has been done in the fast production of a hard and well-shaped brick; and yet each is equally important, and the end will not be reached till such is universally accomplished. By the aid of a little chemical science the clay might be treated in a manner capable of producing any of the ordinary tints; and there is no doubt that, if the makers were convinced that the production of such was in their interests, the want would soon be satisfied. It should always be remembered that those who help to make a city dull and oppressive by smoke-covered stone and sombre and crumbling stucco, and fail to take advantage of the chance to liven and beautify by the use of inviting colored material, are to a great extent responsible for that absence of artistic feeling among the lay portion of the people which is so depressing. Nothing could give greater pleasure than tastefully selected and harmonious colors in architectural work, and it would be difficult to find a better means of artistically educating the people.

Extract from a paper read before the Engineering Association of New South Wales by Mr. James Nangle, and published in the *Australasian Builder*.

#### MORTAR FROM BRICKS.

**M**ORTAR for resisting the action of fire, and proper to be employed in building slight brick piers as substitutes for or instead of employing iron columns, may be made of pozzolano mixed with fresh-ground lime or chalk from the lower beds; and as real pozzolano is an imported substance, and likely to be expensive, its place may be very well supplied by an artificial substance of similar character, produced by burning any marly clay that is fit for brick-making to a gray clinker, and reducing such clinker to a grain of the size of coarse sand. Three fourths of this substance to one fourth of fresh-ground lime, mixed dry in the first instance, and when so mixed rendered plastic by the addition of soft water, will yield a mortar capable of resisting fire for a long time, and water, if need be, as long as any bricks that can be set in it. The same mortar would be excellent for ceilings, if time can be allowed for the setting as the work goes on; but care must be taken in using it for such purpose to guard against the consequences of its expansion in setting.—*British Clayworker*.



TERRA-COTTA AND FAIENCE AS MATERIALS  
FOR ARCHITECTURAL AND DECO-  
RATIVE APPLICATION.*(Continued from May number.)*

A QUESTION of the utmost importance in connection with the use of terra-cotta is its comparative cost. This is determined partly by locality, and partly by the quality of workmanship. In districts in which good stone is abundant and readily accessible, and to which terra-cotta would have to be imported from any distance, it would probably be an open question as to the comparative cost for constructive use; but this general view is subject to large modification, and is subject to the character and extent of the structure, the proportion of repetition in the details of the design, and the quantity of mouldings and enrichments. If, on the other hand, both the stone and terra-cotta have to be imported, the probabilities are very decidedly in favor of terra-cotta being the cheapest; but the general proportion of cheapness will again be determined by the conditions I have just named. The element of cheapness in terra-cotta depends primarily on the extent to which each block can be repeated. Whether few blocks or many are required, the cost of making models and moulds has first to be incurred and calculated, and if it can be distributed over a large number of blocks, the cost per cubic foot is considerably reduced. If, on the other hand, only a few blocks are required of any certain form, the cost of models and moulds must be rated against them adversely. Sometimes, however, this is not so formidable a matter as would at first appear, and much depends upon the nature of the details, and the practical way in which the work is designed and subsequently set out. It is often possible to introduce considerable variety in some directions without any appreciable increase of cost in model-making; whilst, on the other hand, a design may embrace almost the minimum of variation, and yet involve large additional cost. On such points it is very desirable that all architects should possess, as some do, a practical acquaintance with the mode of manipulation, in order to secure the best results; or, as in alternative, that they should elicit some practical suggestions on the subject in elaborating the details of the design, or in making the working drawings.

From what I have said, you will at once see that it is difficult to name any general price for which terra-cotta work can be executed per cubic foot without reference to the structure for which it is required. It varies from about 4s. per cubic foot to double that sum, according to circumstances and the nature of the details. It may even run up to a very much higher figure than this, and still be considerably cheaper than stone for the same work. The same general principles govern the comparative cost of terra-cotta in a modified form. When applied more specifically as an enrichment, it is less necessary to take the question of distance into consideration, and in many forms of enrichment it is possible to secure great variety of design by a judicious use of existing models.

There are many instances in which this can be done in complete harmony with the artistic and architectural character of the structure, and if the designs are good ones and well modelled, a little skilled adaptation will often enable an existing model to be turned to account at very much less cost than would be involved in the special preparation of a new one. If, however, for important structures original modelling is required, I believe it will be found that in most cases it is decidedly cheaper than stone or brick carving of a similar character.

Of course there are all degrees of modelling as there are all degrees in carving, from very good to very bad; but taking really first-class work in spirit and execution as the basis of calculation, it is safe to say that terra-cotta will cost least, even in cases in which there is little or no repetition, whilst if there is repetition the difference in cost soon becomes considerable.

The use of terra-cotta for enrichment, in the form of bands, strings, small pateræ, diapers, and similar forms has stimulated the production by machinery of a number of hard cast-iron-looking designs, more or less geometrical or conventional, which have found some favor by reason of their low price; but many of these things cannot be considered as good artistic work, and I, therefore, do not venture to include them in any calculation of comparative cost; they rather rank with brickwork. I have instituted no comparison between the cost of brickwork and terra-cotta, because it is obvious that brick is decidedly the cheaper form of burnt clay, and may often with great propriety and economy be judiciously used constructively in conjunction with terra-cotta, either according to the original conception of its use by the Italian revivalists, or in more modern forms.

The decorative application of terra-cotta faience is so closely allied with terra-cotta, that it will not seem out of place if I now ask your consideration for a few minutes to its special features as a decorative material. The term implies a French origin, and as you are no doubt aware was originally applied to a glazed pottery, of somewhat stronger and heavier character than ordinary pottery, made at Fayence. The term is still used in France in its original signification, but has gradually been applied in a more general sense to many forms of decorative glazed ware, and has been adopted as a not unsuitable and fairly descriptive term to a material that might also be called glazed terra-cotta had not that term been previously adopted for a material without much character, and without beauty of either form or color to recommend it. Under the general descriptive term of Burmantoft's Architectural Faience is included all forms of terra-cotta, constructive or decorative, for exterior work, and also many special forms of the faience now introduced and very favorably received by the profession for interior application. The material itself may be described as a ware of finer and closer grain than terra-cotta, manipulated by practically the same process, and brought into the desired form by an elaboration of the methods applied to high-class terra-cotta.

To give it increased hardness and character, it is, however, fired at a much higher heat, and being composed of very pure and clean raw material, it is capable of receiving any color, either by the body of the material being mixed with various oxides requisite to produce the desired results, or by being covered with colored metallic glazes with a similar object. By both these methods, adopted alternately, according to the object to be attained, a very hard, durable, and beautiful material is produced, eminently adapted for working out, in a permanent and artistic form, both the simplest and most elaborate varieties of architectural decoration.

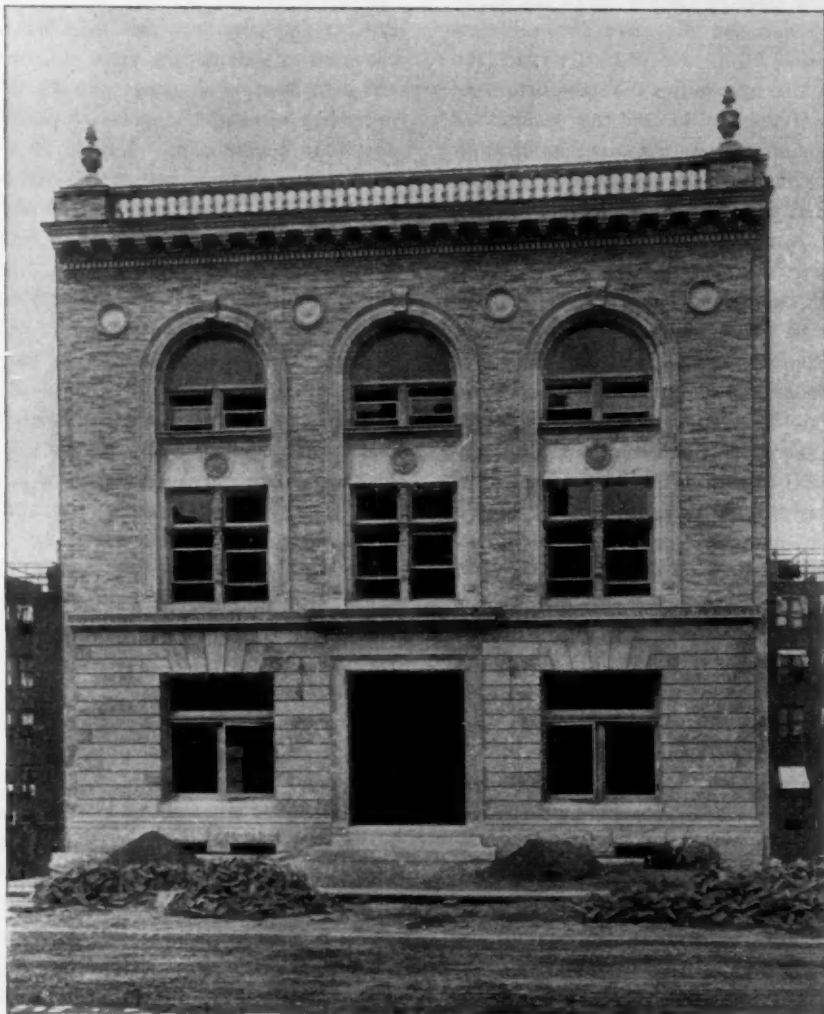
The specimens of the material now submitted to your judgment will, I think, bear me out in these remarks, and will render it unnecessary for me to add further description. I might, however, add that in bringing these specimens before you, I do not claim for them any further novelty than they possess. They illustrate, in fact, the modern application of a process as old or older than history to modern designs and uses, and in a more complete and elaborate form, and this is all that can fairly be claimed for Burmantoft's faience. It is, in fact, the modern form of the enamelled bricks of

Babylon and Nineveh, of which we still possess elaborate remains; of the Italian enamelled work, in which men like Lucca del Robbia excelled many centuries ago. It differs from tiles, inasmuch as it combines constructional uses as well as decorative, or can be applied simply in a decorative form; and it differs from most modern forms of tiles, also, in that it is manipulated on the plastic principle entirely, and is therefore much more capable of being readily applied to any desired form and to any design, by the intervention of elaborate mechanical appliances. The

beauty and mellowness of the design is not lost by transference to metal, and every minute touch of the artist can be made to tell either upon a small tile, or in a large block.

The mode of its application I can safely leave in your hands and in the hands of the profession at large, to whose ready appreciation of an effort to contribute to the range and quality of architectural material, it gives me the sincerest pleasure to make respectful recognition. I may be permitted to add but one remark. The use of

color in exterior architectural designs is, no doubt, a question of some difficulty. Many attempts have been made to secure satisfactory results in that line, and there have been many failures. For thoroughly harmonious effects, it unquestionably requires the eye and skill of a thoroughly competent artist, and some practical experience of the material to be used. In England, at least, we are probably not prepared for our atmospheric or natural surroundings, for the wealth of color so charming and harmonious to the eye under brighter skies; but no one not an hypochondriac can, with any propriety, aver that we are not open to very considerable improvement



BUILDING FOR THE TRUSTEES OF THE DR. CULLIS ESTATE, BOSTON.

J. WILLIAMS BEAL, Architect, Boston.

Brick and Terra-cotta by the Boston Terra-Cotta Company.

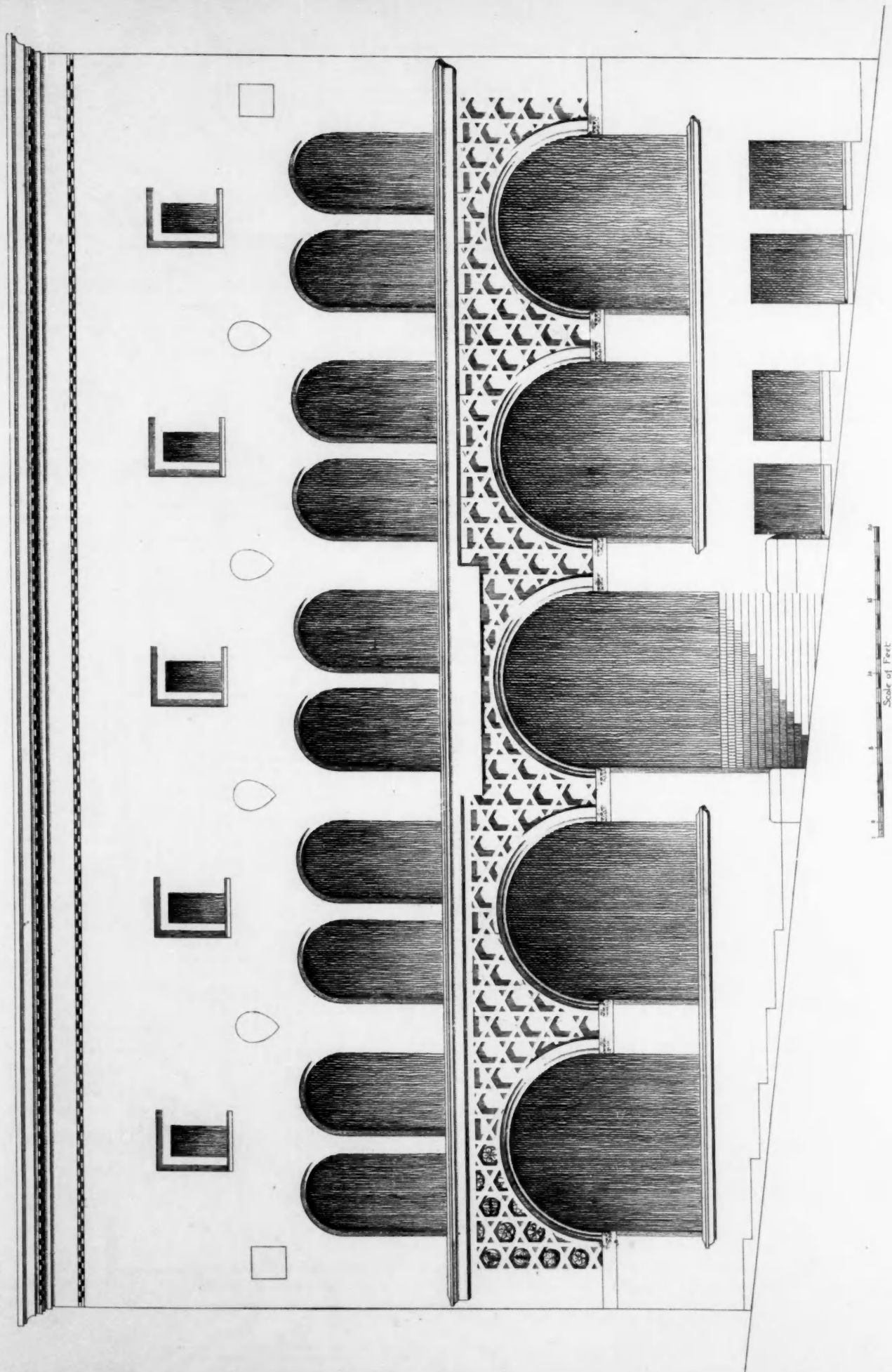
See page 62.

in this respect, or be unready to welcome the judicious and tasteful use of such materials as improved methods of manufacture and increased scientific skill place at the disposal of the architect and builder.

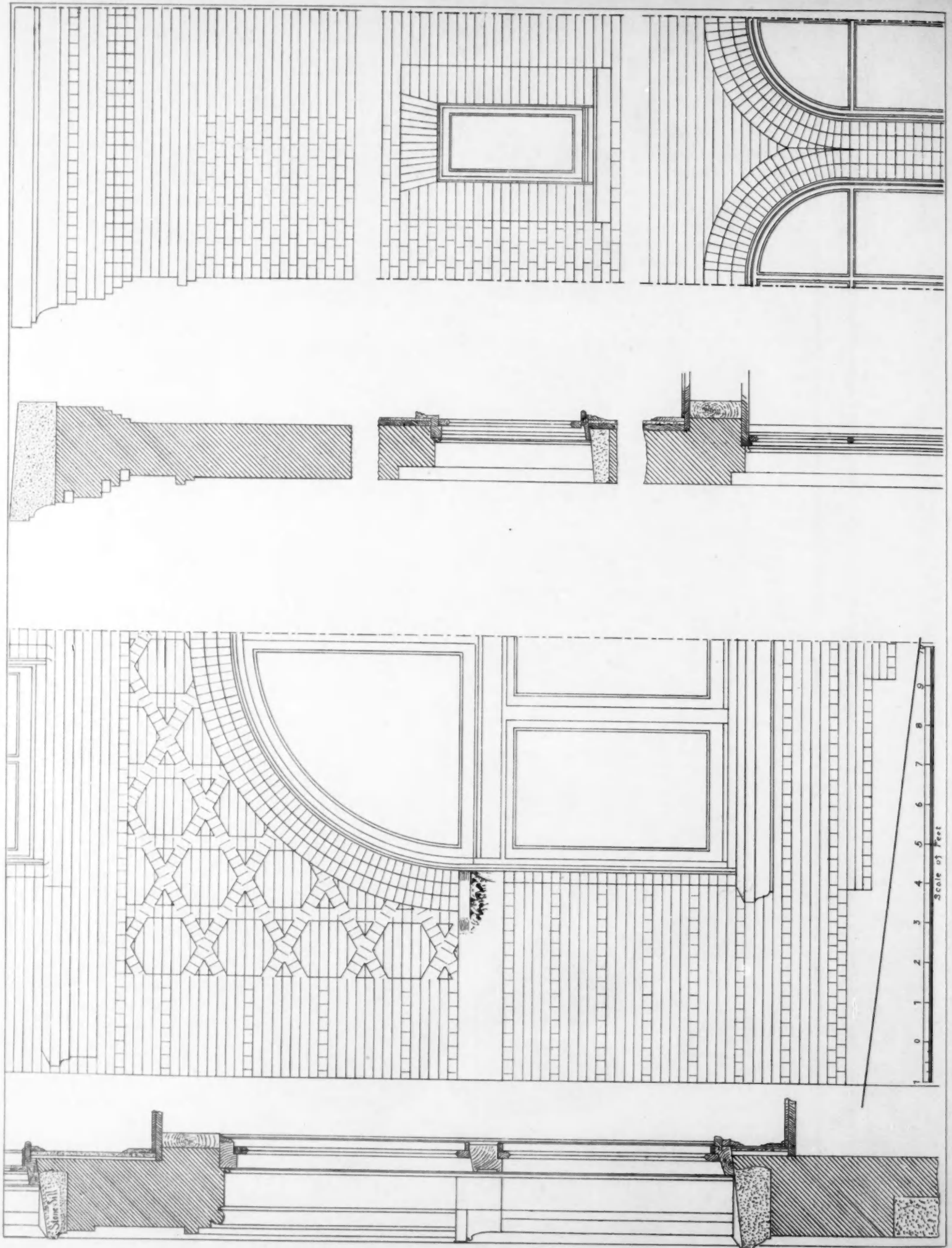
(To be continued.)

MR. W. R. HARGIS, Edinburg, Ill., would like information concerning the making of cement and concrete pavements from firms manufacturing cement suitable for such work.



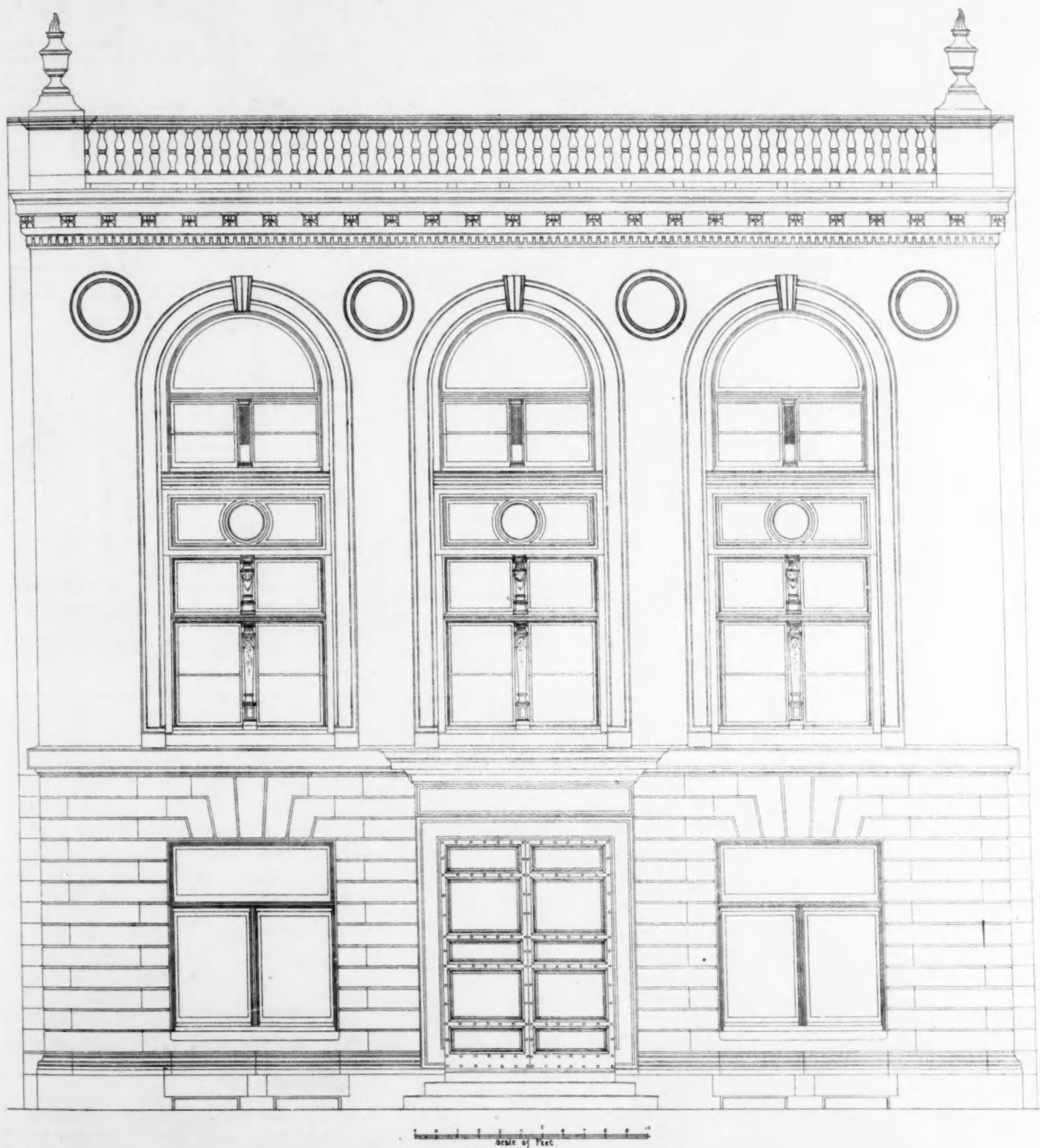


RHODE ISLAND SCHOOL OF DESIGN, PROVIDENCE, R. I. ELEVATION TO ONE-EIGHTH INCH SCALE.  
ANDREWS, JAKES & RANTOUL, ARCHITECTS, BOSTON



RHODE ISLAND SCHOOL OF DESIGN, PROVIDENCE, R. I. DETAILS.  
ANDREWS, JAMES & RANTOUL, ARCHITECTS, BOSTON.

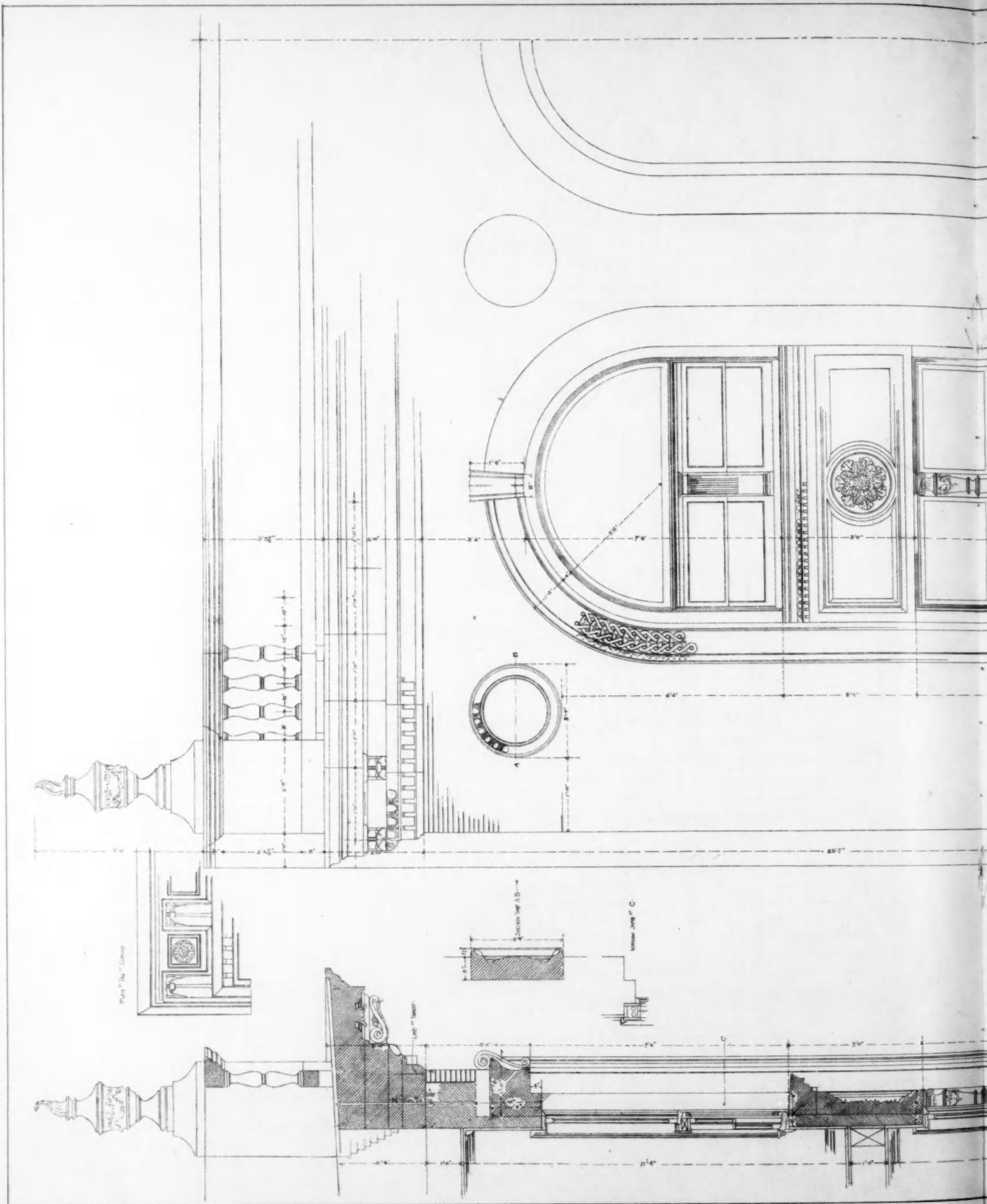




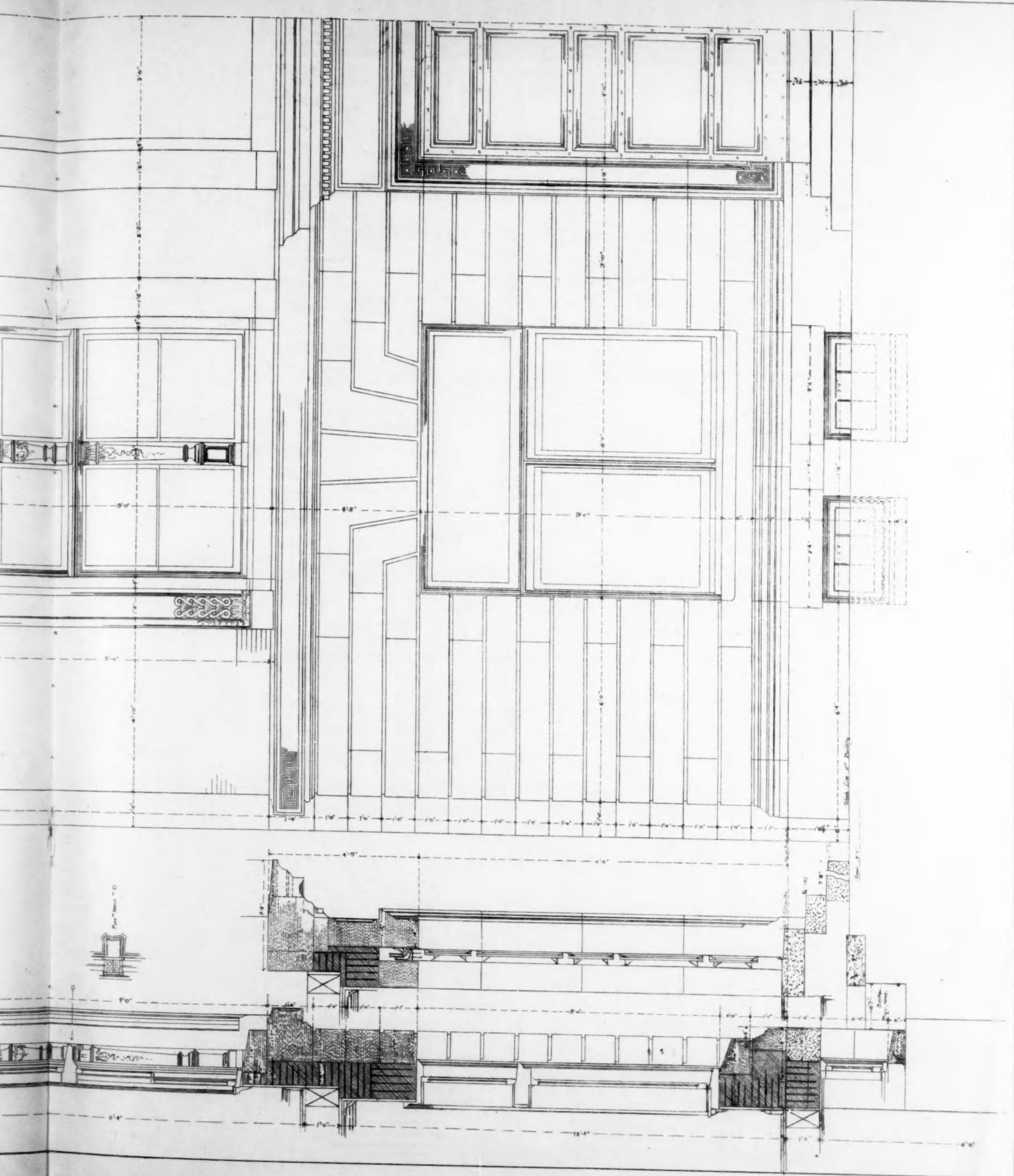
BUILDING FOR TRUSTEES OF THE DR. CULLIS ESTATE, BOSTON.

J. WILLIAMS BEAL, ARCHITECT, BOSTON.

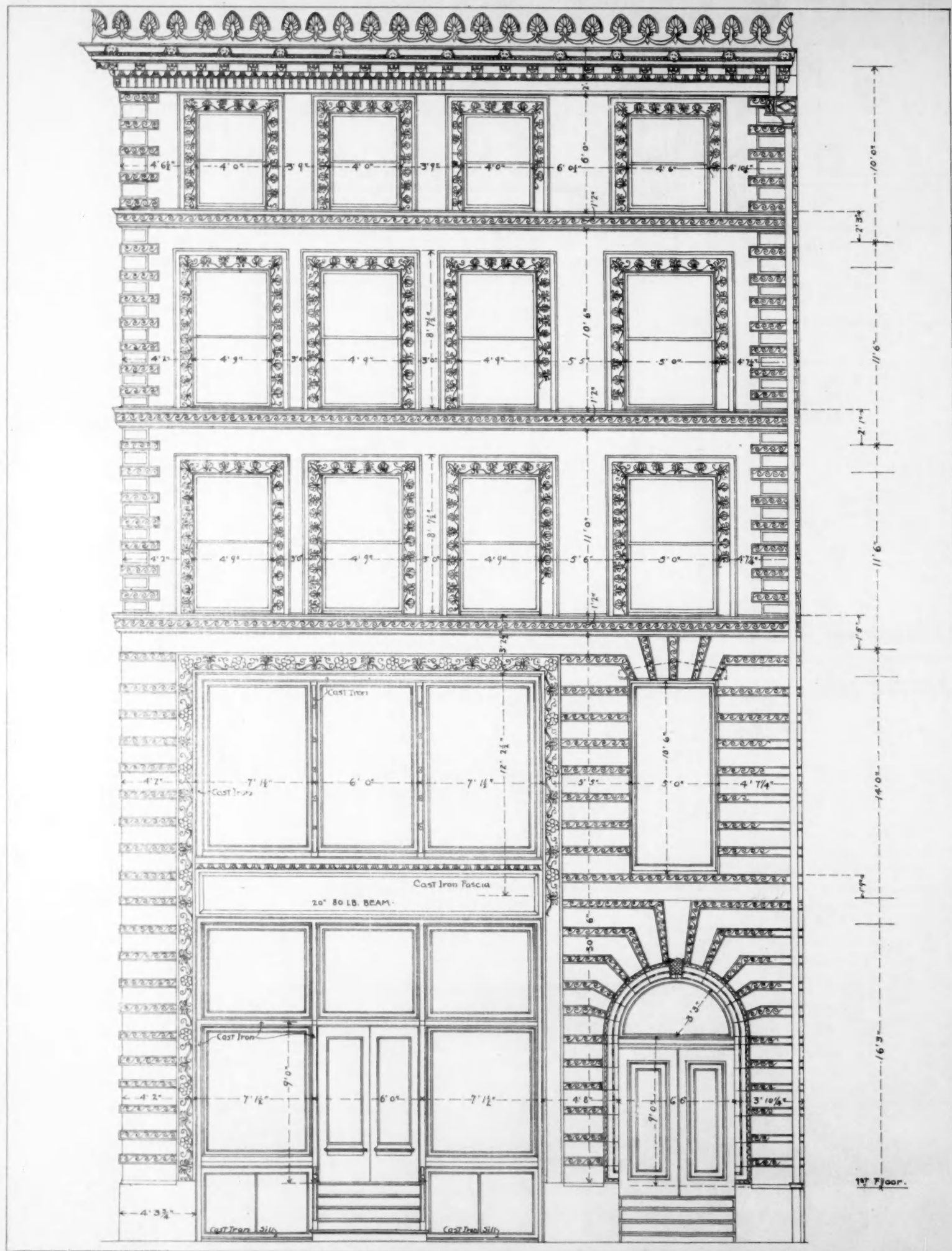
BRICK AND TERRA COTTA BY THE BOSTON TERRA COTTA CO. SEE PAGES 58 AND 62.







BUILDING FOR TRUSTEES OF THE DR. CULLIS ESTATE, BOSTON.  
J. WILLIAMS BEAL, ARCHITECT, BOSTON.

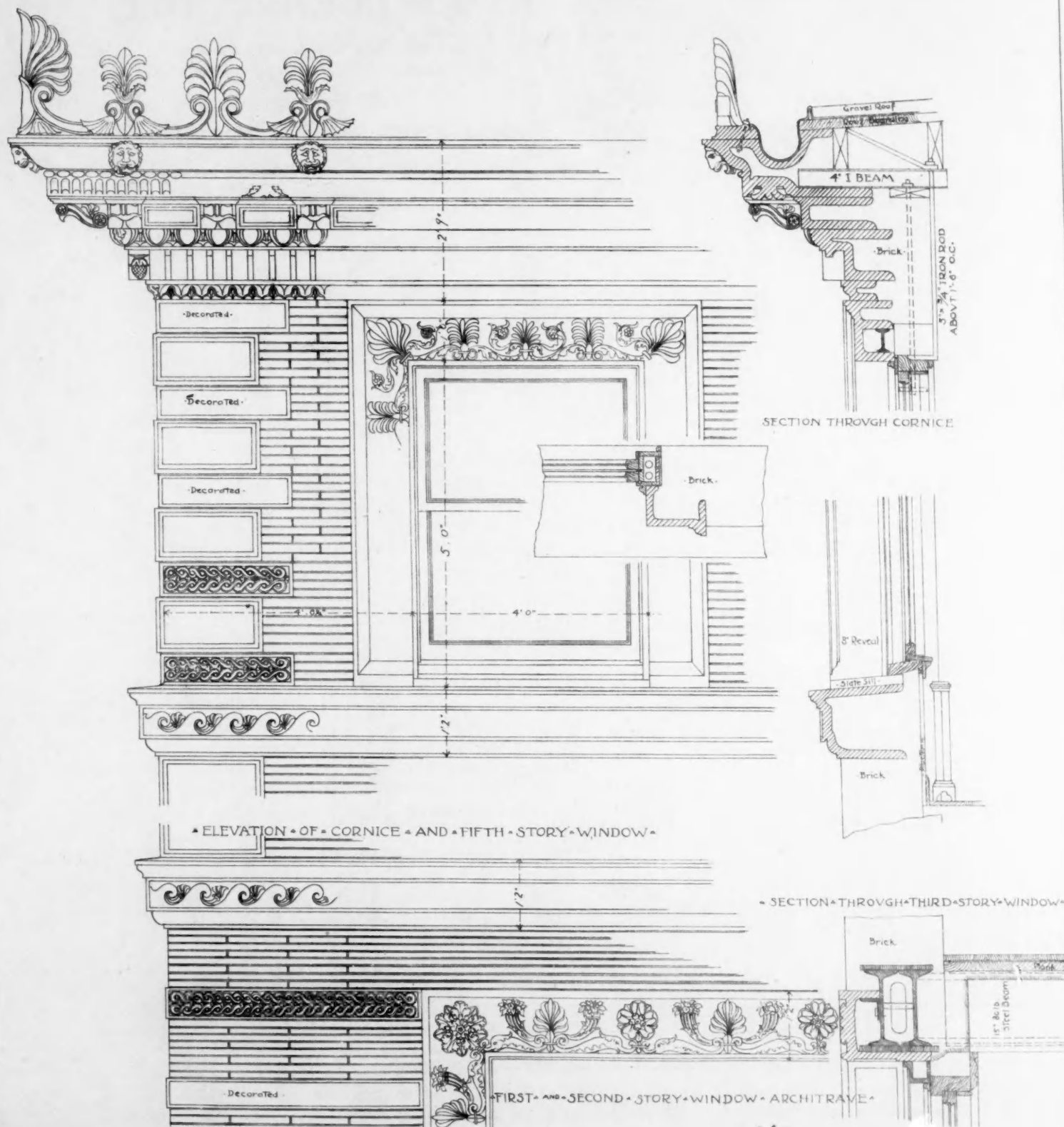


BUILDING FOR THE LUDLOW MFG. CO., ESSEX ST., BOSTON.

PEABODY &amp; STEARNS, ARCHITECTS, BOSTON.

BRICK BY THE SAYRE &amp; FISHER CO., NEW YORK; TERRA COTTA BY WALDO BROS., BOSTON AGENTS OF THE PERTH AMBOY TERRA COTTA CO.





BUILDING FOR THE LUDLOW MFG. CO., ESSEX ST., BOSTON.

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# THE BRICKBUILDER.

AN ILLUSTRATED MONTHLY DEVOTED TO THE ADVANCEMENT OF ARCHITECTURE IN MATERIALS OF CLAY.

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## PUBLISHERS' STATEMENT.

No person, firm, or corporation, interested directly or indirectly in the production or sale of building materials of any sort, has any connection, editorial or proprietary, with this publication.

IN the *Engineering Magazine*, Mr. John Beverley Robinson, in an article entitled "Modern American Country Houses," suggests that slate could be used more than it is for covering the sides of houses as well as the roofs. He says: "There is a beautiful slate to be obtained which is regarded as waste by the quarries, *very much as until recently* the most beautiful brick were rejected by the kilns because they did not meet the demand for uniformity of color. These inferior qualities, as they are considered, I have reason to believe are of as good quality as many others for wear. After a year or two they change color irregularly, fade into soft blue-greens, olives, or browns, which make with the original green or purple a color effect which it is a joy to behold." We do not think that the large majority of brickmakers are as yet alive to the value of bricks they reject as imperfect, any more than the quarrymen are to the slates referred to. Some few manufacturers fully appreciate the artistic character of a brick wall where the bricks are not sorted to color, but even then they can hardly get over looking at an individual brick and comparing it with another rather than considering it with relation to its effect in the wall. One of the largest dealers in the country, speaking of an imported brick he was handling, said he did not dare to inspect a cargo when on the wharf for fear he could not resist having them sorted, so they went to the building as they came from the kiln. In the wall they are all right, the very imperfections, as he considered them, giving the building its attractive color effect. If a dealer accustomed to supplying bricks and terra-cotta for the finest buildings, by the best architects, cannot overcome this

tendency to uniformity, what can be expected of manufacturers who seldom if ever come in contact with the architects, selling, as they do, almost wholly to jobbers or contractors? The bricks used in the building for the Cullis Estate, illustrated on plates 43, 44, and 45, of which special mention is made elsewhere, were doubtless a surprise to the salesman, and he possibly expected a terrible "kick" from the architect. The contractor of the job even proposed scouring down the front to bring it to an even color. It is doubtful how long the present beautiful coloring will remain, but we would advise the manufacturers to try and match it with a permanently colored brick. The Exchange Club on Batterymarch and Milk Streets, in this city, is another example of variety of color, obtained, not by using a variegated brick like the Pompeian, but by using red bricks of different shades, inclining largely to very dark, dull reds. The trims are white terra-cotta, and the effect of the building, so far as we can judge by the start made on the second story, promises to be excellent. There is one great regret that we are constantly experiencing; that is, that processes of color printing are not available to place clearly before our readers the effects we refer to. Successful experiments have been made by a New York firm that hold out the promise of a solution to the problem that will be of commercial value. When this is reached we can promise something in the line of colored plates true to the subject.

HOW many who have noticed the peculiar construction of the corner of the Monadnock Building in Chicago know how it was done? It is in many respects one of the most skilful pieces of work on the part of both brickmaker and contractor to be found in this country. In the first place, the bricks are specially moulded, not only for the corner but also for the tops and bottoms of the bays and the second story. Starting from a square at the base, the corner gradually becomes rounded, the curve being that of a quarter of an ellipse, growing in size as it rises, the gradation being perfect. The architects (Messrs. Burnham & Root) gave the dimensions of the ellipse at various heights, and from these data the bricks were moulded, the well-known Anderson Company doing this part of the work. In the second story, the wall recedes with a slight curve from the line of the first story, and bricks were made for this curve, the beds being always horizontal. The George A. Fuller Company were the contractors and did the brickwork. All moulded and face brick were supplied by the Anderson Company. The bricks are all standard size, laid with one eighth or three thirty-seconds of an inch joints.

A SUBSCRIBER writes us that there are no decent bricks in Mexico. What they have are in size about  $11 \times 5 \times 2\frac{1}{2}$  to  $3\frac{1}{2}$  inches. It is impossible to get ten thousand of even size and thickness. Mexicans will not use the American size. In *ordinary* work, he says, all bricks are rubbed to an even size by hand. His letter concludes with the remark, "Cheerful country, isn't it?"



DESIGN FOR A MANTEL, BY THE JARDEN BRICK COMPANY.

## EQUALITY OF LABOR.

*Editor of The Brickbuilder.*—It seems to me that a plain statement of a few facts pertaining to the working mechanics and laboring people of the present time would prove interesting to the readers of a journal like THE BRICKBUILDER.

The subject I have chosen is one of great interest to the working classes, and one which, when the discussion of it is once started, is likely to bring forth many opinions and conclusions from those most interested. The point I wish to impress upon the minds of my readers is that there is too much distinction between skilled labor and unskilled labor. Take, for example, the bricklayer, the hod-carrier, and the laborer who mixes the mortar.

In Omaha the bricklayers as a rule work eight hours per day and receive fifty cents per hour as pay. The laborers and hod-carriers get from twenty to twenty-five cents per hour. This, in my estimation, is entirely too much distinction between the skilled labor and the unskilled, for as such I will have to distinguish the two, although in ordinary work there is very little skill required on the part of the brick-

layer. As a matter of fact, some kinds of artistic brickwork require some skill on the part of the bricklayer to execute with neatness and dispatch; yet the bricklayer does not possess the skill and ability that reasonably entitle him to be worth from twenty to thirty cents per hour more than his fellow-helper. The bricklayer handles the brick and lays them one at a time, and the physical labor required is as nothing when compared with that of the hod-carrier, whose customary load is from eighty to one hundred pounds, and this, too, is frequently carried up ladders, especially on two and three story buildings. Is it possible that people with common sense can look upon this state of affairs and call it justice to unskilled labor? Is it right that the man who performs that part of the physical labor that is the most exhausting to strength and vitality should receive only half pay for his labor? I claim it is not, yet it seems to be a fact the world over that those who do the least get the most. This is not only the case in the brickbuilding trade, but is universally true in every vocation of life. There are some reasons why skilled labor should receive better pay than unskilled, but there is no good, substantial reason why there should be maintained

such a great distinction as there is at present. I favor skilled labor, as being entitled to the best pay, yet I can see good and sufficient reasons why unskilled labor should receive its just reward and become more on a par with its class of the higher order. I do not mean to infer that the bricklayer's wages are too high, but I do mean to infer that the price of common labor is entirely too low. No mechanic will become rich very fast working by the day, even though he gets fifty cents an hour for his labor; for it must be remembered that mechanics in the building trades have long winters of enforced idleness, as well as many lost days between jobs, so that not more than seven or eight months in the year can be counted as giving steady employment. Only a few favored ones have work nearly all the time. The masses are idle nearly all the time during the winter season and have to live upon what they were able to save through the working season. But this is not all: at the beginning of spring work nine out of ten of the laboring class find themselves largely in debt for the actual necessities of life which they had to have through winter, and that it will take them half or two thirds the season at steady work and good wages to get even with the world. Thus, when winter comes again, it finds them with a scanty allowance; spring comes and finds them no better off than they were the year before; and if work has been scarce, or if they have had sickness in the family, then they are even worse off.

That labor is insufficiently paid no one can hardly deny, and that the wages for unskilled workmen are entirely inadequate to the support of themselves and families no one with practical common sense can fail to see and admit.

For example, I will contrast the difference between skilled and unskilled labor, taking the wages of the bricklayer and his helper for the basis of my estimates. I will allow seven and one half months in a year for labor, which is about the best that can be counted on. Allowing twenty-six working days to a month, eight hours a day and fifty cents per hour, the net earnings of the bricklayer are \$780.00. What are his expenses, figured economically? Suppose he is a married man, not with a large family, like most of the working class, but a family of only four. It will cost him \$1.50 each, \$6.00 per week, or per year, for an economical living, \$312.00; coal and lights per year, \$50.00; clothing, only \$15.00 each per year, \$60.00; house rent, \$10.00 per month, \$120.00; incidental expenses, \$25.00; total amount of expenses, \$567.00. Net earnings, \$780.00; expenses, \$567.00. Amount over and above expenses, \$213.00. Thus the bricklayer has the bare possibility of being able to save about \$200 per year, basing his expenses very low; and it is plainly seen that sickness and a little bad luck here and there, the furnishing of household necessities that have to be purchased every few years at least, will not leave very much surplus money on his hands at the end of the year. How fares it with the hod-carrier, the man of bone and muscle who does the most work for the least pay? Seven and one half months per year, twenty-six days per month, eight hours per day at twenty-five cents per hour, and his

net earnings amount to \$390.00. Now figure his expenses. There is no sensible reason in the world why this man and his family should not be entitled to live just as good, wear just as good clothes, live in just as comfortable a house, and in every respect live equal to his skilled and superior workman; but he cannot do it; his wages will not admit of it, so his expenses must be cut down to the lowest notch. Allowing four persons to the family, \$1.00 each, \$4.00 per week, or per year for a scanty living \$208.00; coal and lights per year, \$40.00; clothing, only \$10.00 each per year, \$40.00; house rent, \$8.00 per month, \$96.00; incidental expenses, \$6.00; total amount of expenses, \$390.00. Net earnings, \$390.00; expenses, \$390.00.

Thus the man doing the hardest work has to stint himself and live on next to nothing in order to make a bare living, and in reality the man doing the hardest labor needs the best living and care to keep up his strength and vitality. It is just like working a horse; if you work him hard you must feed him accordingly, or he will grow poor and soon be of no account. Now, it has been shown that a bricklayer at fifty cents per hour makes but little more than a comfortable living. Every working-man should be entitled to a respectable living, and if a bricklayer requires fifty cents per hour to secure a comfortable living, his helper, who is entitled to live equally as well, should have at least forty cents per hour for his labor. Equal pay for equal work should be considered in the matter of wages vastly more than it is; and, as the cost of supporting a common laborer's family in a respectable way of living is the same as it is for the family of the man of skill, he is entitled to about the same pay. What he lacks in skill he makes up in physical labor, and is therefore entitled to equal pay for equal work.

I. P. HICKS.

Omaha, Neb.

#### PRINTING FOR THE TRADE.

THE publishers of THE BRICKBUILDER are now prepared to supply composition, electrotyping, press work, designing, and engraving, and any work in connection with cataloguing, at moderate prices, considering the quality of the work. Manufacturers of clay-working machinery will find it to their advantage to get a quotation from us on catalogue and circular work. Particular attention will be given to out-of-town orders for business cards, stationery, etc., from architects and builders. The character of our paper forces us to have every facility for designing, drawing, and engraving, and illustrations of every character can be executed promptly and at moderate prices. Correspondence is solicited.

#### BRICK CORNICES.

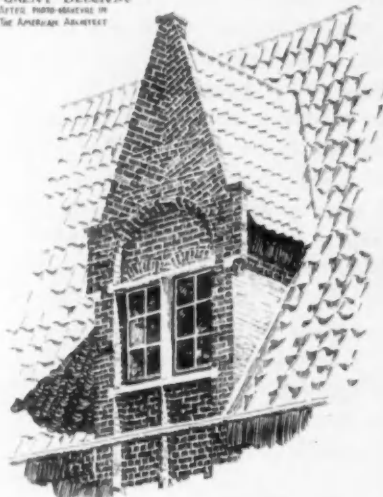
THE number of THE BRICKBUILDER for July, 1892, contains forty-five designs for brick cornices. Many of these are for common brick, and every manufacturer of brick and every dealer in mason builders' supplies should have a copy in his office. It costs only twenty-five cents, and will pay for itself a hundred times over.



## THE ILLUSTRATIONS.

PLATE 41. Rhode Island School of Design, Providence, R. I. (main elevation); Andrews, Jaques & Rantoul, architects, Boston, Mass. This building is built of common brick, in Flemish bond above the first story.

DESIGNED BY  
J. E. PETTY, BEQUINAGE,  
CHENEY, BELLEVILLE,  
ARTS PHOTOGRAPHS IN  
THE AMERICAN ARCHITECT



DRAWN FOR COMPETITION No. 9  
by WILL S. ALDRICH, Somerville, Mass.  
A good drawing generally but a hard treatment  
of the window itself.

D. A. GREGG.

The spandrels of first-story arches are filled with an all-over pattern of hexagonal panels of four inches reveal, the dividing lines being projecting headers. It is intended to ultimately fill these panels with modelled ornament, executed in clay by the students, and fired. A suggestion of this treatment is shown in the spandrel at the left-hand end. The rendering of the drawing was adopted to give the general effect of wall surface and openings. The plate is exactly one eighth inch scale.

PLATE 42. Rhode Island School of Design, Providence, R. I. (details); Andrews, Jaques & Rantoul, architects, Boston.

PLATES 43, 44 and 45. Building for trustees of the Dr. Cullis estate, Huntington Avenue, Boston; J. Williams Beal, architect, Boston. (See photograph on page 58.) This charming little façade is at present one of the finest examples of color in brickwork in this city. It is of light stone in the first story, with light brick and white terra-cotta above. Both brick and terra-cotta came from the Boston Terra-cotta Works (Fiske, Homes & Co., managers). The brick is colored beautifully in delicate greens and yellows that are largely accidental, for the manufacturers will not agree to duplicate the job. There is some very good interior detail that we would suggest to some publication within whose field such work lies.

PLATES 46, 47, and 48. Building for the Ludlow Manufacturing Company, Essex Street, Boston; Peabody & Stearns, architects, Boston. (Elevation on Essex Street and details.) This building is in course of erection to replace the one destroyed in the fire of March 10 of this year. Subscribers will remember the elevation and details of the former building, published in our initial number, and the photograph, published in the number for February of this year. The new building is of light cream-colored terra-cotta by the Perth-Amboy Terra-cotta Company, and a brick to match by the Sayre & Fisher Company of New York.

## TRADE NOTES.

ON page 60 we publish a design prepared by the Jarden Brick Company of Philadelphia, to show the use of their ornamental bricks in mantel design. To give some idea of the cost of such a mantel, they have prepared a schedule of the stock, including the fireplace lining, the hearth, and the tile-work which shows below the shelf. In red brick, the material, properly packed for shipment and delivered on the cars at Philadelphia, will cost \$180. In buff brick the cost is \$225, and in "iron spot mottled," \$260. This mantel is sixteen feet high and ten feet wide. The fireplace opening is six feet. The company has many smaller and simpler designs for mantels that are very effective, and for such interior work the mechanical perfection of the Jarden brick renders it particularly suitable.

IT is one thing to get up a fine line of ornamental brick, but it is fully as difficult to keep stock to supply the demand. Ever since the Philadelphia & Boston Face Brick Company sprung their line of Renaissance patterns on the architectural profession, the problem that has confronted them has been the one of increasing the capacity of their works fast enough to keep up with their orders. Had they not first accumulated a large stock of all shapes, before entering the market, they would have been in bad shape to meet the orders that have come in from all parts of the country.

THOSE of our readers interested in sliding blinds, who attend the World's Columbian Exposition, should not miss inspecting the very complete exhibit of the Willer Manufacturing Company of Milwaukee, in the north end of the balcony in the Liberal Arts Building. A similar exhibit may also be seen at their regular Chicago office in the Adams Express Building, 185 Dearborn Street. Their line of blinds of every description, screens, and screen doors is well worth inspection.

FOR convenience and neatness the sample case of mortar colors prepared by S. Bowen's Sons of Philadelphia, for architects' use in selecting tints of the Pecora Mortar Colors, is one of the best things yet issued by the trade.

## AS OTHERS SEE US.

Geo. W. Spaulding, Architect, Woonsocket, R. I.: "I cannot get along very well without THE BRICKBUILDER. Please send me the back numbers and oblige."

W. W. Thompson, Architect, Dallas, Tex.: "I have felt a deep interest in your paper since its beginning, as it covers an entirely different field from any other architectural paper I know of; and I must say that it is covering the field very well indeed. Would be glad to see something in it from the South."

## EIGHT PRIZE DESIGNS

Were published in our double Nov. and Dec., 1892, number as a result of our competition for plans, elevations and details

### Of a \$2,000 Brick House.

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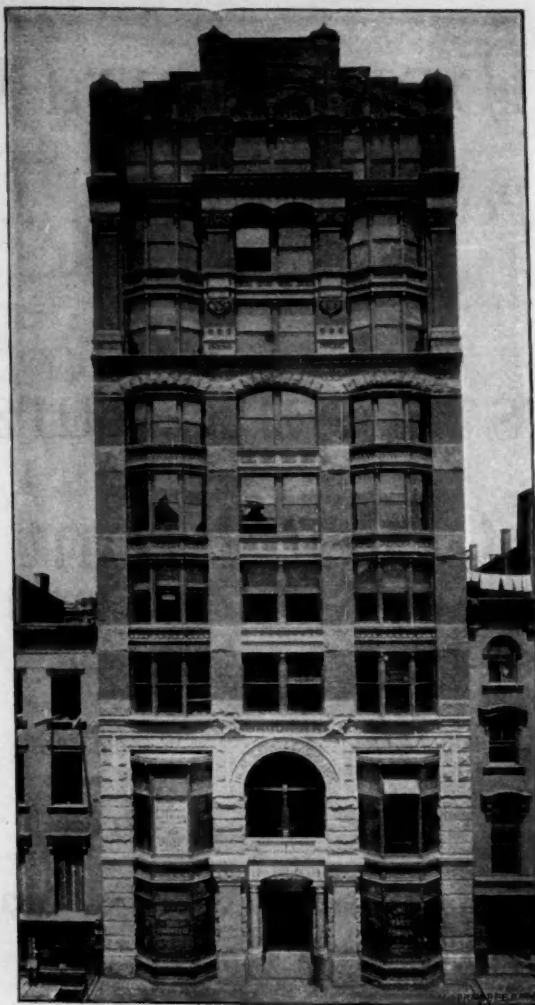
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### BEST SITES

are located, and as to

### INDUCEMENTS OFFERED

to those in the above lines of industry who propose seeking a new location. For further information, and for the pamphlet mentioned, address GEO. C. POWERS, Industrial Commissioner I. C. R. R., 58 Michigan Ave., Chicago, Ill.

### LOCATIONS FOR FABRIQUES.

The trend of manufacturing is Westward, and among all manufacturers there is a latent feeling that the West as a territory for the manufacture of goods presents features unexcelled by any other section in the Union.

The eight States traversed by the 6,150 miles of the CHICAGO, MILWAUKEE & ST. PAUL RAILWAY'S tracks (Illinois, Wisconsin, Northern Michigan, Iowa, Missouri, Minnesota, South Dakota and North Dakota) possess in addition to the advantages of raw material and proximity to markets, that which is the prime factor in the industrial success of a territory—a people who form one live and thriving community of business men in whose midst it is safe and profitable to settle. Many towns on the line are prepared to treat very favorably with manufacturers who would locate in their vicinity.

In addition to the vast agricultural resources, its territory comprises forests of hard and soft woods, mines of iron and other metals, coal and other minerals, quarries, clays of all kinds, tan-bark, flax and other raw materials. Water-powers (both river and artesian) are also still available.

A number of new factories have been induced to locate—largely through the instrumentality of this Company—at towns on its lines.

The central position of the States traversed by the Chicago, Milwaukee & St. Paul Railway makes it possible to command all the markets of the United States. Nothing should be permitted to delay enterprising manufacturers from investigating. The Industrial Department promptly furnishes practical information to manufacturers. As it is to the interest of the Road to secure the location of industries at places where the surroundings will insure their permanent success, the information furnished a particular industry is pertinent and reliable.

LUIS JACKSON,

Industrial Commissioner, C. M. & St. P. Ry.,  
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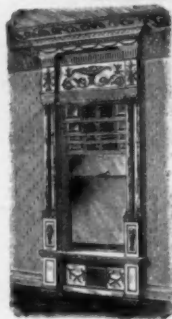
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